OBJECTIVES: Basal Cell Carcinoma (BCC), a subset of non-melanoma skin cancer (NMSC), is the most common cancer in the United States. Previous studies using secondary data have been unable to characterize the BCC population, as they were completed prior to the release of BCC-specific ICD-9 codes in 2011. The objective of this study was to estimate the incidence and prevalence of BCC in a commercially insured US population. **METHODS:** This was a retrospective study using the MarketScan Commercial and Medicare Supplemental Database. Patients included were aged ≥18 years with ≥2 claims for BCC in any position, separated by 60 ≤ days ≤ 180 in the identification period 10/1/11 to 9/30/12. Patients were continuously enrolled in medical and pharmacy benefits in the 12 months prior to and following the first observed claim (index date). The cohort was further categorized as having incident or prevalent BCC, based on the absence or presence of a NMSC diagnosis code in the year prior to the index date. Descriptive statistics were performed on baseline demographics and clinical characteristics. **RESULTS:** A total of 19,704 patients with BCC were identified, of whom 12,299 (62.4%) were incident and 7,405 (36.6%) were prevalent cases. The majority of patients were male (overall: 59%, incident: 55%, and; prevalent: 67%, respectively). The mean age (SD) of the BCC cohort was 66 (13.8) and patients with incident disease were younger 64 (13.7) than patients with prevalent disease 69 (13.5). Mean Charlson Comorbidity Index scores were higher in the prevalent cohort (1.5 vs 1.0) and were largely driven by rates of malignancy (21.9% vs. 12.6%), diabetes (20.1% vs. 17.7%), and chronic obstructive pulmonary disorder (12.8% vs. 10.8%). **CONCLUSIONS:** In this commercially insured population, patients with prevalent BCC are more likely to be male, older, and have higher rates of comorbidities than patients with incident disease.

PCN26

EPIDEMIOLOGY AND TREATMENT OF RADIOACTIVE IODINE-REFRACTORY DIFFERENTIATED THYROID CANCER IN THE EU5

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OBJECTIVES: Explore epidemiology and drug treatment of radioactive iodine-refractory differentiated thyroid cancer (RR-DTC) in EU5. **METHODS:** Epidemiology of RR-DTC was derived from the Kantar Health (KH) CancerMPact database, sources for which include country specific cancer registries, published scientific studies and proprietary physician surveys comprising 81 doctors seeing a total of 3,985 patients per month. Data specific to treatment of RR-DTC was derived from patient chart review studies conducted by KH. Age and gender specific incidence rates, annual stage specific progression rates and annual stage specific survival rates are used to calculate total number of surviving patients at a specific stage up to 10 years after diagnosis. **RESULTS:** Incidence of thyroid cancer ranged between 5 - 20 per 100K population across EU-5 (UK-4.8, Germany-8.4, France-13.4, Italy-20.3, Spain-7.2). Among all thyroid patients, % DTC showed less variation: 76% (UK), 83% (Germany), 87% Italy, 88% (Spain), 91% (France). Among DTC, % RR was very similar (range 26% - 33%). Among RR DTC, 23% received watch and wait, 33% non-systemic management and 44% systemic therapy. Among those receiving systemic therapy, 48% received chemotherapy, 46% received tyrosine kinase inhibitors (TKI) and 6% BRAF inhibitors. Among those receiving chemotherapy, 50% received doxorubicin, either as monotherapy or part of a multi drug regimen and 20% received cisplatin. Among those receiving a TKI, 51% received sorafenib, 28% sunitinib. **CONCLUSIONS:** Among RR DTC patients treated with systemic therapy, chemotherapy and TKIs are used most often. The most common chemotherapy is a doxorubicin containing regimen and sorafenib is the most common TKI used.

PCN27

BONE PAIN, SKELETAL RELATED EVENTS AND OPIOID USE IN PATIENTS WITH PROSTATE CANCER AND BONE METASTASES

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OBJECTIVES: Prostate cancer (PC) patients with bone metastases experience symptoms including debilitating pain that is associated with increased morbidity and mortality. Opiates in conjunction with other treatments are recommended for the management of severe pain, but real world data on their use in PC are limited. This study estimates the prevalence of and predictors for opioid use in PC patients with bone metastases. **METHODS:** Electronic medical records (EMR) from US community oncology clinics captured in OncoEMR® database were used to identify PC patients with bone metastases. Opioid use was identified from EMR, while evidence of bone pain and skeletal-related events (SREs), including pathological fracture, surgery, radiotherapy to bone and spinal cord compression were extracted from patients' medical charts. Prevalence of opioid use was evaluated. Predictors for opioid vs. non-opioid analgesic use for pain were identified using a multivariate logistic model. **RESULTS:** In the study cohort of 1,520 PC patients with bone metastases, the average age was 73.6 years and mean follow-up from bone metastases was 13.8 months. In the subset with evidence of bone pain (N=927), 63% were opioid users, of whom 14% were chronic users. Multivariate regression analyses revealed that SREs significantly increased the opioid use risk by 3.21-fold (95% CI: 2.38-4.32), with the following additional significant risk factors: Medicare vs. other/no insurance (OR=1.54, 95% CI: 1.13, 2.10), chemotherapy (OR=3.34, 95% CI: 2.17, 5.13), and NSAIDs use (OR=1.90, 95% CI: 1.25, 2.88). **CONCLUSIONS:** SREs are a significant predictor for opioid use. 37% of the patients with bone pain had no documented use of opioids. Pain and symptom palliation is a significant management issue in PC. It is important to choose appropriate treatments for patients that delay or prevent SREs and effectively control pain.

PCN28

PRE-EXISTING TYPE 2 DIABETES MELLITUS AND 5-YEAR MORTALITY AMONG ELDERLY MEDICARE BENEFICIARIES WITH COLORECTAL CANCER

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OBJECTIVES: The objective of this study is to examine the relationship between pre-existing Type 2 Diabetes Mellitus (T2DM) and all-cause mortality among elderly Medicare beneficiaries with Colorectal Cancer (CRC), after controlling for other risk factors (sex, age, race, co-occurring chronic conditions and office visits prior to cancer diagnosis, cancer stage, site, treatment, region and rurality). **METHODS:** A retrospective cohort design was used. The data were derived from the Surveillance, Epidemiology, and End Results (SEER) cancer registries linked with Medicare claims files. The final study cohort consisted of elderly Medicare beneficiaries (age > 66 years) who were diagnosed with incident CRC between 2003 and 2008 and continuously enrolled in fee-for-service Medicare Part A and Part B (N = 42,304). Pre-existing T2DM was identified with ICD-9-CM (International Classification of Diseases, 9threvision, clinical modification) codes during the 12 months prior to the diagnosis of CRC. Time-to-death was calculated in months. Log-rank tests and Cox proportional hazards, non-repeatable events regression model were used to test the unadjusted and adjusted associations respectively. **RESULTS:** In our study cohort 29.8% had pre-existing T2DM; 44.2% with T2DM died and 41.6% without T2DM died within 5-years. Median months to death for those with T2DM was 58 (95%CI = 57.9, 58.8) and without T2DM was 59 (95%CI = 58.8, 59.1). After adjusting for other risk factors, CRC patients with pre-existing T2DM had moderately higher risk for all-cause mortality (HR 1.12, 95% CI 1.08, 1.16). Except for tumor location, rurality, region, and hypertension all other factors were significantly associated with mortality. **CONCLUSIONS:** Elderly Medicare beneficiaries with incident CRC and pre-existing T2DM had moderately higher risk of all-cause mortality. Future research needs to examine whether T2DM management reduces the hazards of all-cause mortality among patients with T2DM and incident CRC.

PCN30

SHORT- AND LONG-TERM SURVIVAL ASSOCIATED WITH LAPAROSCOPIC VERSUS OPEN COLECTOMY IN EARLY-STAGE COLON CANCER: FINDINGS FROM A RETROSPECTIVE COHORT STUDY

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OBJECTIVES: Previous randomized trials and observational studies have shown only comparable survival benefits for colon cancer patients undergoing colectomy with laparoscopic versus conventional open surgery. Although laparoscopic surgery has become a preferred approach, its survival benefits have not been adequately examined in a recent colon cancer cohort. We therefore assessed in a real-world Medicare population short- and long-term survival among early-stage colon cancer patients treated with laparoscopic-assisted colectomy (LAC) versus open colectomy (OC). **METHODS:** In this retrospective observational cohort study, early-stage colon cancer patients aged ≥65 years who received colectomy within 6 months of diagnosis were selected from the Surveillance Epidemiology and End Results-Medicare database (2004-2009). Patients undergoing LAC were propensity matched to those receiving OC on demographic and clinical characteristics (stage at diagnosis, tumor size, and comorbidities). Short-term (1-year) and long-term (5-year) overall survival rates, and survival times were assessed using Kaplan-Meier methods for the overall cohort and separately by patients diagnosed with local- versus regional-stage disease. **RESULTS:** A total of 10,073 early-stage cancer patients met the study inclusion criteria (55% female; median age 77.8 years). Of total, 60.2% were diagnosed with local-stage and 39.8% with regional-stage disease at diagnosis. The 1-year survival did not differ between LAC and OC groups for the overall cohort and local-stage patients, but was significantly higher in the LAC group for regional-stage patients (98.4% vs. 97.4%; p<0.05). The 5-year survival was significantly better in the LAC (vs. OC) group for the overall cohort (63.2% vs. 59.8%; p<0.05) and regional-stage patients (54.9% vs. 48.5%; p<0.01). Regional-stage patients treated with LAC also had longer survival time (5.5 vs. 4.7 years; p<0.01). **CONCLUSIONS:** Results of this study indicate that LAC was associated with greater long-term overall survival rate and survival time versus OC among elderly early-stage colon cancer patients, particularly those with regional-stage disease at diagnosis.

PCN31

OVERALL SURVIVAL IN POST-MENOPAUSAL WOMEN WITH HR+/HER2- METASTATIC BREAST CANCER TREATED WITH 1ST-LINE ENDOCRINE THERAPY VS. CHEMOTHERAPY

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OBJECTIVES: As newer treatment options become available to postmenopausal women with HR+/HER2- metastatic breast cancer (mBC), understanding the relative survival benefit of different treatment options and sequencing is of increasing clinical importance. This study compared overall survival (OS) in patients with HR+/HER2- mBC whose 1st-line therapy was endocrine therapy (1st-line endo) vs. chemotherapy (1st-line chemo) in real-world settings. **METHODS:** Data were extracted from a community oncology electronic medical records database from Altos Solutions. Eligible patients were postmenopausal women, with ≥1 medical record with a BC diagnosis, confirmed HR+/HER2- status, and 1st mBC diagnosis (index date) after July 1, 2012. OS between 1st-line endo and 1st-line chemo patients was compared using cumulative proportion of deaths and Cox proportional hazard regressions controlling for age, race, region, insurance type, comorbidities, disease recurrence, and metastatic sites. **RESULTS:** Among the 1,051 patients meeting the eligibility criteria, 676 (64.3%) received 1st-line endo and 375 (35.7%) received 1st-line chemo. 1st-line endo patients were older (68.1 vs. 64.4 years, p<0.001) and were more often Caucasian (74.1% vs. 65.9%, p=0.005) compared with 1st-line chemo patients. Site of metastases was known in 57.5% of 1st-line endo and 59.2% of 1st-line chemo patients, with bone being the most common site (48.8% vs. 40.3%, p=0.008). The cumulative proportion of deaths was 5.9% vs. 10.7% (p=0.005), 10.4% vs. 14.7% (p=0.039), and 12.0% vs. 17.3% (p=0.016) at 6, 12, and 18 months, respectively. Patients receiving 1st-line endo had better OS at 6 (adjusted hazard ratio [HR]: